

*AMENDMENTS TO THE CLAIMS*

This listing of claims replaces all prior versions, and listings, of claims in the application.

1.-7. (Canceled)

8. (Currently Amended) A method of producing a rat embryonic stem cell, which method consists essentially of ~~comprises~~ the following steps (A)-(E) performed using a culture medium with 2% or less serum concentration:

(A) culturing a rat blastocyst in a leukemia inhibitory factor (LIF)-free culture medium to form an inner cell mass in the blastocyst,

(B) dissociating the inner cell mass, wherein the dissociated inner cell mass is in a cell aggregate state,

(C) culturing primary embryonic stem cells resulting from a culture of the dissociated inner cell mass until the primary embryonic stem cells can be passaged,

(D) dissociating the primary embryonic stem cells, which can be passaged, wherein the dissociated primary embryonic stem cells are in a cell aggregate state, and

(E) culturing the dissociated primary embryonic stem cells to establish an embryonic stem cell, eell.

wherein a rat leukemia inhibitory factor (rLIF)-containing culture medium is used in steps (C)-(E).

9. (Previously Presented) The method of claim 8, wherein the culture medium comprises a serum replacement reagent.

10. (Previously Presented) The method of claim 8, wherein step (B) comprises a step for mechanically dissociating the inner cell mass.

11. (Previously Presented) The method of claim 8, wherein step (D) comprises a step for mechanically dissociating the embryonic stem cells.

12. (Previously Presented) The method of claim 8, wherein a rat leukemia inhibitory factor (rLIF)-free culture medium is used in step (B).

13.-35. (Canceled)